

TUBERCULOSIS IN ARIZONA

A Summary of Cases Reported through December 31, 1998

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Arizona Department of Health Services

Morbidity

Table 1: Tuberculosis Cases and Rates per 100,000 Population Arizona and United States, 1990-1998

Year Reported ^a	Arizona			United States	
	Cases	Population	Rate per 100,000	Cases ^d	Rate per 100,000 ^d
1990	275	3,665,228 ^b	7.5	25,701	10.3
1991	324	3,763,372 ^c	8.6	26,283	10.4
1992	258	3,858,825 ^c	6.7	26,673	10.5
1993	228	3,946,975 ^c	5.8	25,287	9.8
1994	247	4,036,875 ^c	6.1	24,361	9.4
1995	317	4,184,723 ^c	7.6	22,860	8.7
1996	282	4,462,717 ^c	6.3	21,337	8.0
1997	296	4,595,379 ^c	6.4	19,855	7.4
1998	254	4,722,097 ^c	5.4	18,361	6.8
Total	2,481	NA	NA	NA	NA

a Year reported reflects the year a case was counted by ADHS

b Based on the 1990 Census

c Based on population projections for the corresponding years

d Data from the U.S. Department of Health and Human Services

Demographics

Table 2: Tuberculosis Cases and Rates per 100,000 Population by Age Group Arizona, 1998

Age Group	Cases # (%)	Population ^a	Rate per 100,000
Under 5	11 (4.3)	351,612	3.1
5 - 14	13 (5.1)	706,235	1.8
15 - 24	21 (8.3)	647,480	3.2
25 - 44	69 (27.2)	1,422,033	4.9
45 - 64	72 (28.3)	934,149	7.7
Over 64	68 (26.8)	660,588	10.3
Total	254 (100)	4,722,097	5.4

a Population data published by the ADHS Office of Epidemiology and Statistics (<http://www.hs.state.az.us/plan/pop98/po98.htm>)

Table 3: Tuberculosis Cases by Age Group and Sex Arizona, 1998

Age Group	Male	Female	Total Cases
Under 5	7	4	11
5 - 14	5	8	13
15 - 24	12	9	21
25 - 44	43	26	69
45 - 64	51	21	72
Over 64	42	26	68
Total	160	94	254

Table 4: Tuberculosis Cases and Rates per 100,000 Population by Age Group and Race/Ethnicity Arizona, 1998

Age Group	White, Not Hispanic	African-American	Hispanic, White	Native American	Asian/Pacific Islander
Under 5	2	1	7	1	0
5 - 14	0	1	12	0	0
15 - 24	2	3	12	2	2
25 - 44	16	8	32	7	6
45 - 64	27	2	22	16	5
Over 64	31	2	19	14	2
Total	78	17	104	40	15
1997 Population ^a	3,072,763	158,423	947,077	251,306	91,158
Rate per 100,000	2.5	10.7	11.0	15.9	16.5

a Race-specific rates based on 1997 data as 1998 data by race/ethnicity were unavailable as of April 16, 1999
(<http://www.census.gov/population/www/projections/stproj.htm>)

Selected Clinical Characteristics

Table 5: Tuberculosis Cases by Form of Disease and Vital Status at Diagnosis Arizona, 1998

Form of Disease	Cases Alive at Diagnosis	Cases Diagnosed after Death ^a	Total Cases
Pulmonary Only ^b	186	6	192
Pulmonary & Extra-pulmonary ^b	17	0	17
Extra-pulmonary Only	41	4	45
Total	244	10	254

a It is unknown if TB was listed as a cause of death

b The classification of Pulmonary TB includes laryngeal TB

Table 6: Tuberculosis Cases Resistant to INH and Other Anti-TB Drugs Arizona, 1993 - 1998

Year Reported	Cases	Culture Confirmed	Drug Sensitivity Testing # (%)	INH Resistant ^a # (%) ^b	MDR ^c # (%) ^b	Other Drug Resistance ^d # (%) ^b	Total Drug Resistance # (%) ^b
1993	228	219	193 (88%)	11 (6%)	3 (2%)	18 (9%)	32 (17%)
1994	247	223	204 (91%)	15 (7%)	4 (2%)	17 (8%)	36 (18%)
1995	317	237	231 (97%)	8 (3%)	3 (1%)	29 (13%)	40 (17%)
1996	282	232	223 (96%)	6 (3%)	7 (3%)	23 (10%)	36 (16%)
1997	296	235	223 (95%)	18 (8%)	2 (1%)	18 (8%)	38 (17%)
1998	254	208	204 (98%)	10 (5%)	1 (<1%)	14 (7%)	25 (12%)
Total	1,624	1,354	1,278 (94%)	68 (5%)	20 (2%)	119 (9%)	207 (16%)

a Resistant to at least INH **without** resistance to RIF

b Percent of total cases with sensitivity testing

c Resistant to **at least** INH and RIF

d Resistance to drugs **other than** INH

Risk Factor Information

Table 7: Tuberculosis Cases by Selected Characteristics Arizona, 1993 - 1998

Risk Factor	1993 (%) ^a	1994 (%) ^a	1995 (%) ^a	1996 (%) ^a	1997 (%) ^a	1998 (%) ^a
Total Cases Reported	228	247	317	282	296	254
Occupation						
Correctional Facility Worker	0	0	0	0	0	1 (<1%)
Health Care Worker	3 (1%)	6 (2%)	8 (3%)	2 (1%)	3 (1%)	3 (1%)
Migrant Farm Worker	5 (2%)	7 (3%)	4 (1%)	9 (3%)	2 (1%)	4 (2%)
Reported Behaviors						
Injectable Drug User ^b	8 (4%)	4 (2%)	17 (5%)	12 (4%)	11 (4%)	6 (2%)
Non-injectable Drugs ^b	9 (4%)	5 (2%)	14 (4%)	13 (5%)	17 (6%)	10 (4%)
Excessive Alcohol Use ^b	22 (10%)	28 (11%)	43 (14%)	37 (13%)	45 (15%)	40 (16%)
Type of Residence						
Long Term Care Facility	5 (2%)	10 (4%)	16 (5%)	14 (5%)	12 (4%)	5 (2%)
Correctional Facility	6 (3%)	6 (2%)	16 (5%)	18 (6%)	23 (8%)	13 (5%)
Homeless ^b	31 (14%)	26 (11%)	45 (14%)	35 (12%)	27 (9%)	30 (12%)
Country of Birth						
Foreign Born	75 (33%)	88 (36%)	124 (39%)	108 (38%)	109 (37%)	100 (39%)
Underlying Disease						
Known HIV Infection ^c	16 (7%)	14 (6%)	28 (9%)	16 (6%)	12 (4%)	13 (5%)

a Percent of annual cases

b Within the year before TB diagnosis (routine collection of information began Jan. 1, 1993)

c HIV infection is a reportable condition in Arizona.

Table 8: Tuberculosis Cases Among Foreign-born Persons by Length of Time in the United States Arizona, 1998

Area of Origin	Years in the United States Before Tuberculosis Report				
	<< 2 Years	2 - 3 Years	4 - 5 Years	Unknown	Total Cases (%) ^a
Asia/Pacific Islands	2	1	10	0	13 (13%)
Mexico	16	7	45	1	69 (69%)
Other Central/ South America & Caribbean	2	0	4	1	7 (7%)
Europe and Former Soviet States	2	0	1	0	3 (3%)
Africa	2	0	2	0	4 (4%)
India	1	0	2	0	3 (3%)
Unknown	0	0	1	0	1 (1%)
Total	25	8	65	2	100 (100%)

a Percent of total cases

County of Residence

Table 9: Tuberculosis Cases by County of Residence and Other Selected Characteristics Arizona, 1998

County of Residence	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma	Total Cases
Cases	7	2	4	4	1	1	1	138	6	10	51	7	5	2	15	254
Rate/100,000 Population	10.6	1.7	3.4	8.5	3.0	11.3	5.2	4.9	4.4	11.5	6.2	4.6	13.6	1.4	11.4	5.4
Race/Ethnicity																
White, Not Hispanic	0	2	1	1	0	1	0	40	6	0	22	1	0	1	3	78
Hispanic, White	0	0	0	0	0	0	1	68	0	0	16	4	5	1	9	104
African-American	0	0	0	0	0	0	0	13	0	0	4	0	0	0	0	17
Native American	7	0	3	3	1	0	0	4	0	9	9	2	0	0	2	40
Asian/Pacific Islander	0	0	0	0	0	0	0	13	0	1	0	0	0	0	1	15
Sex/Age																
All Sexes <15 years	0	0	0	0	0	0	0	18	1	0	0	0	1	0	4	24
Females, 15 years	1	1	3	2	1	0	0	42	1	4	19	1	2	1	4	82
Males, 15 years	6	1	1	2	0	1	1	78	4	6	32	6	2	1	7	148
Type of Residence																
Correctional Facility	0	0	0	0	0	0	1	7	0	0	1	4	0	0	0	13
Long Term Care Facility	0	0	0	0	0	0	0	3	0	0	1	1	0	0	0	5
Homeless ^b	0	0	1	0	0	0	0	18	1	1	7	1	0	0	1	30
Country of Birth																
Foreign-born	0	0	0	0	0	0	1	66	1	1	15	4	4	1	7	100
Drug Resistance																
INH Resistance ^c	0	0	0	0	0	0	0	6	0	0	4	0	0	0	0	10
MDR ^d	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1

a Based on population data published by the Office of Epidemiology and Statistics (<http://www.hs.state.az.us/pln/pop98/pop98.htm>)

b Within the year before TB diagnosis (routine collection of information began Jan. 1, 1993).

c Resistance to at least INH **without** resistance to RIF

d Resistance to at least INH and RIF

File: 98stats.wpd/6May1999/dgm/seg

Database: 1998.dbf